



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

To: WCI Partners
From: Erin Rogers, Christopher Busch, Patricia Monahan, and Laura Wisland, UCS (erogers@ucsusa.org)
Re: Comments on the WCI's July 23 Draft Design Recommendation for a Regional Cap-and-Trade Program
Date: August 13, 2008
Via: Electronic submission

The Union of Concerned Scientists (UCS) appreciates the pioneering efforts of the WCI Partners to develop a framework for regional climate action in North America and the opportunity to share our thoughts and concerns with you regarding the "Draft Design" recommendations for a cap and trade program released on July 23, 2008. UCS is a leading science-based nonprofit working for a healthy environment and a safer world, and represents nearly a quarter-million members in the United States.

UCS strongly supports adoption of a declining, economy-wide cap on global warming pollution that puts the region on a firm path toward longer-term reductions on the order of at least 80 percent below 2000 levels—the level of reduction needed throughout the developed world to avoid the most devastating impacts of global warming. Scientists worldwide continue to remind us that action to reduce global warming pollution is urgently needed and that our window of opportunity to act is rapidly narrowing.

The WCI Partner governments are fortunate to have the leadership skills, the political will amongst their constituents, and the intellectual and financial resources to set the bar high and develop a program that could serve as a model for other states and the country. UCS is concerned that the WCI may be squandering this opportunity by recommending an unacceptably weak cap-and-trade program design. A particular danger is that such suboptimal design parameters could negatively affect the shape of future regional and federal climate policy frameworks.

Several design elements of the proposed cap-and-trade program should be strengthened. In particular, UCS encourages you to:

- Include transportation within the cap from the start of the program
- Adopt a first jurisdictional deliverer point of regulation for the electricity sector
- Set the 2012 cap below BAU emission for that year and implement a price floor on the price of allowances
- Require 100 percent auctioning and use the allowance revenue for the public good;
- Limit offsets to no more than one percent of emissions and ensure that offsets are generated from uncapped sectors within the region;
- Establish guidelines to ensure that public health and air quality are protected and that lower-income residents and workers are not disproportionately affected

Below are more detailed comments in six areas:

- 1) Scope: Transportation (Section 1.2.5)
- 2) Point of Regulation: Electricity (Section 2.2)
- 3) Setting the Cap (Section 6.2-6.3)
- 4) Distribution of Allowances (Section 8)
- 5) Offsets (Section 9)
- 6) Public Health and Equity (Additional)

1) Scope: Transportation (Section 1)

UCS urges the WCI to develop the following policies to reduce emissions from the single largest source of global warming pollution in the region – transportation.

- Transportation emissions should be included in an economy-wide cap from the outset.
- Emissions from the combustion of biofuels should be included in the cap and the emissions inventory.
- Any carbon allowances should be auctioned and a share of the proceeds from allowances or carbon fees should be used to foster cleaner transportation choices.
- Aggressive policies and regulations must be implemented to reduce emissions from vehicles, fuels, and vehicle miles traveled.

1.2.5 Include transportation in economy-wide cap in the first compliance period

UCS strongly supports including emissions from transportation in the cap of the WCI from the outset of the cap and trade program. There is no technical reason to delay compliance until the second compliance period.

There are at least three advantages to a broad scope for cap-and-trade that includes transportation fuels.

First, including transportation extends a hard cap across a much larger part of the economy, and can generate revenue to fund programs to help the WCI meet its emission reduction target. This feature can be contrasted with other policies that can improve energy intensity but do not guarantee a particular level of reductions.

Second, including transportation sends the right price signals to the market that can help drive reductions in transportation emissions. Over the long run, the price signal should stimulate changes in the elasticity of demand for transportation fuels. The increased availability of lower carbon fuels and alternative transportation options (like public transit) will allow consumers to reduce demand as prices increase.

Third, a broad market will enhance the robustness of the carbon market, helping to stabilize the market. It also levels the playing field so that all high-emitting sectors receive equitable treatment under the market. This will encourage efficient investment decisions by sending a consistent price signal across all high emitting sectors.

1.3 Account for combustion-related biofuel emissions

The draft design creates a loophole by proposing to exclude global warming pollution from the combustion of biofuels in the cap and trade program. At the tailpipe, biofuels pollute the same as gasoline, and should be held accountable to the same cap. Giving biofuels an unfair competitive advantage could result in an increase in global warming pollution.

Presumably, the reason the WCI recommendations assign zero emissions to biofuels is because they inaccurately assume that lifecycle emissions are net zero. Lifecycle models like GREET find that today's biofuels reduce emissions about 20%. However, new data on the impacts of land conversion from biofuel production indicate that emissions from current generation biofuels may be significantly higher than gasoline. Biofuels that contribute to deforestation or other damaging land conversions likely result in greater global warming pollution than today's gasoline or diesel. (*see UCS fact sheet, "Land Use Changes and Biofuels" Attachment 1*)

Since today's biofuels may increase global warming pollution relative to conventional petroleum-based fuels, there is no technical justification for excluding their emissions from the cap.

Biofuels can play a constructive role in an overall strategy to address global warming, but only if policies are in place to promote the clean biofuels and restrict use of polluting biofuels. Policies like a Low Carbon Fuel Standard are paramount to ensuring that transportation fuels are held accountable for their lifecycle pollution.

Use carbon auction or fee revenue to enhance transportation choices

UCS supports the auctioning of carbon allowances or the imposition of carbon fees for tailpipe emissions of global warming pollution, and the use of the revenue to enhance consumer transportation choices, such as mass transit, smart growth, and other strategies that could enhance clean transportation choices and increase the long-run elasticity of demand for transportation fuels. Wisely used, auction revenues can be invested in lower carbon technologies and strategies that allow consumers to reduce demand for gasoline and diesel as prices increase.

Aggressive complementary policies to reduce vehicle miles traveled and emissions from vehicles and fuels

Participants in the WCI must continue to develop and implement aggressive complementary policies and regulations to drive emissions reductions in the transportation sector. In the short run, complementary policies are more important than cap and trade in driving down emissions from transportation. By 2020, the modest price signal from cap and trade is not likely to significantly depress demand for transportation fuels, and complementary policies are needed to change the elasticity of demand and provide low carbon transportation alternatives to consumers.

We need concerted and aggressive action to address all three legs of the transportation stool: Vehicles, fuels and miles traveled. Vehicle emission standards, incentives for the purchase of cleaner vehicles, heavy duty efficiency improvements, anti-idling enforcement, low carbon fuel standards, and smart growth/better transportation planning are highly effective in boosting fuel

economy, reducing the carbon content of fuels, and cutting vehicle miles traveled, resulting in lower emissions from the transportation sector.

We strongly support the requirement that entry into the WCI be predicated upon adoption of California's vehicle greenhouse gas tailpipe standards. The current standards require that new vehicles reduce global warming pollution by 30 percent, and CARB estimates that upcoming standards will reduce emissions from new vehicles by an additional 13 percent. Adoption of California's standards is a minimum demonstration that WCI participants are committed to reducing emissions from transportation.

2) Point of Regulation: Electricity (Section 2.2)

WCI Partners Should Adopt Direct Regulation Policies that Complement Cap-and-Trade
UCS urges the WCI Partners to expressly support direct emissions reduction policies within each WCI Partner jurisdiction that will complement a cap-and-trade system. Complementary direct regulations will maximize direct emissions reductions in Partner jurisdictions, providing important co-benefits to the WCI region while reducing consumers' exposure to allowance price uncertainty. The California Air Resources Board ("CARB") has proposed a suite of policies in addition to cap-and-trade in its Draft Scoping Plan for AB 32. These policies are expected to achieve 80% of the reductions that must occur in California by 2020. Two cornerstone policies of CARB's Draft Scoping plan that are expected to achieve the majority of emissions reductions in California's electricity sector are expansion of the state's Renewable Portfolio Standard ("RPS") and adoption of aggressive energy efficiency targets. Each Partner within the WCI jurisdiction should increase its investment in cost-effective energy efficiency programs, as well as adopt or strengthen a mandatory and enforceable RPS program. WCI Partners should also consider adopting an Emissions Performance Standard ("EPS"), which would require load-serving entities ("LSE"s) to either meet an average output-based emissions standard for the portfolio of supply resources, or for each individual contract used to provide retail electricity. These complementary policies provide local benefits in addition to global warming pollution reduction, such as improving air quality, stimulating economic investments and jobs, and shielding ratepayers from volatile fossil prices.

UCS Supports a First Jurisdictional Deliverer Point of Regulation

Several WCI partners depend upon electricity imports from states outside the WCI partner jurisdiction, which is why WCI total emissions from electricity consumption are significantly higher than emissions from generation located within the current WCI.¹ Regulating emissions only from sources within the WCI Partner jurisdiction, and excluding electricity imports from outside the WCI, would create strong economic incentives to increase imports of power from non-WCI Partners. LSEs in WCI Partner regions would be incentivized to shift power purchases towards unregulated, cheaper imports, resulting in significant emissions "leakage" and seriously compromising the integrity of the cap-and-trade program. The potential impact

¹ Point Carbon estimated that emissions within the WCI attributed to electricity consumption are 15% higher than the emissions created by electricity generator located within the WCI region. Since this report was completed before Ontario joined the WCI, the 15% number may have changed. *See* Carbon Market Analyst; The New Carbon Frontier, Emission Trading in the West; Point Carbon; October 30, 2007, pg. 7.

of emissions leakage on the northeastern states participating in the Regional Greenhouse Gas Initiative (“RGGI”) was modeled in 2007. Under a “middle-of-the-road” scenario, cumulative emissions leakage was estimated at 27 percent of net CO₂ emissions reductions through 2015, including emission reductions expected through offsets.²

Regulating emissions at the FJD level would also eliminate the challenges of tracking emissions from in-state unspecified sources of power. Furthermore, with a FJD approach, the emissions associated with electricity imports outside the WCI jurisdiction would be reported by the entities responsible for bringing the power into the WCI Partner jurisdiction. Because these entities are already regulated by WCI Partners, the FJD approach should increase the accuracy and reliability of reported global warming emission reductions.

A WCI Cap-and-Trade Program Should Value Voluntary Emission Reductions

UCS believes it is important that a WCI cap-and-trade program is designed to value and encourage any emissions reductions that will occur through voluntary renewable energy generation. UCS supports the approach taken by the RGGI off-the-top rule. In this approach, voluntary renewable energy purchases are projected and corresponding allowances that represent these MWhs are removed from the entire pool of available allowances. At the end of each compliance year, actual voluntary renewable energy purchases are trued-up with projected amounts by a Program Administrator.

3) Setting the Regional Cap (Section 6)

6.2. 2012 cap level

UCS does not support setting the initial cap within the cap-and-trade program at a level that seeks to achieve no reductions over business-as-usual in 2012 (counting the effects of other policies). In effect, such an approach aims for a price of zero for allowances in the first year of the program.

Over-allocation--the failure to achieve emission reductions due to setting the cap at a level that was too high--has been perhaps the main failing of cap-and-trade programs to date. The RECLAIM program failed to produce any reductions for years because of over-allocation. The risks of catastrophic climate change should inspire urgent action. The time for timidity is past. The cap-and-trade program should aim for reductions from the first year of the program. Delaying the beginning of a downward trajectory for emissions only increases the size of the effort in later years.

One way to guard against over-allocation is to include a price floor (in auction terms: a reserve price). UCS supports inclusion of price floor.

² Potential Emissions Leakage and the Regional Greenhouse Gas Initiative (RGGI): Evaluating Market Dynamics, Monitoring Options, and Possible Mitigation Mechanisms; RGGI Emissions Leakage Multi-State Staff Working Group; March 2007, p. 24.

4) Distribution of Allowances (Section 8)

The Partners' retreat from the previous recommendation of a minimum percentage of auctioning is a disappointing development. UCS supports auctioning 100% of allowances from the start of the program. Disparities in the emission intensities among Partners are manageable through the use of auction revenue.

8.2. Minimum percentage of allowance value

UCS appreciates the enumeration of the principle that the value of allowances should be used in way that advances the public interest. However, this is best achieved by auctioning.

We understand that some Partners have suggested that it might be easier to plan for investment of the value of allowances than would be the case with auction revenue. However, the value of allowances will be directly tied to the market value of allowances, which in turn will decide the quantity of revenue that would be raised from auctioning allowances. So we do not find this argument to be persuasive.

8.5. Competitiveness issues

There will be pressure from industry to not auction any more than the minimum required in order to provide a financial advantage. This is one reason to set the minimum required auction level at the highest possible level (ideally, 100%).

8.7. Minimum auction percentage

Auctioning is an important part of designing a cap-and-trade program that is maximally effective and fair. For this reason, the Partners should adopt a minimum level of auctioning that is as large as possible, preferably 100%. At minimum, auctioning should be the main method for distributing allowances from the outset (implying majority are auctioned), should increase steadily over time, and 100% auctioning should be achieved by 2020.

Distributing allowances via auctions offers these benefits:

- *Avoids Windfall Profits to Polluters*
The allowances created under a tight cap are a valuable, scarce commodity that commands a market price. The European experience under cap-and-trade has shown that free allocation leads to windfall profits in competitive markets.³ Giving away allowances to covered emitters does not protect consumers from price rises in competitive markets. Electric utilities and other covered emitters in Europe have been able to raise prices to consumers to reflect the market value of the allowances, even though they received them for free. The total value of allowances will far exceed the adjustment costs that business may face, and this is why unfair windfall profits result from giving away allowances. The National Commission on Energy Policy explains how windfall profits can come about: "Economic analysis and experience with Europe's

³ Two recent reports have documented and explained the occurrence of windfall profits in the European Union's Emission Trading System. These are: (i) National Commission on Energy Policy, 2007, *Allocating Allowances in a Greenhouse Gas Trading System* (ii) Deutsche Bank Research, March 2007, *EU Emissions Trading: Allocation Battles Intensifying*.

trading system suggests that energy companies can and will pass most program costs through to consumers and businesses at the end of the supply chain. If the same companies get a large allocation of free allowances, the value of those allowances is likely to substantially exceed any actual net costs they incur as a result of the policy.”

- *Offers an Efficient Source of Revenue for the Public Benefit*
Revenue gained from auctioning permits enhances economic efficiency because it is gained by correcting the “externality” that has been associated with the lack of a cost for emitting global warming pollution. The revenues generated by an allowance auction can be used to invest in emission reductions outside of the cap-and-trade program, in particular measures that will assist energy consumers. It is particularly important the lower income households not endure disproportionate impacts, as these are the most economically vulnerable households. The Draft Design lists a number of appropriate possible uses of revenue generated by auctioning.
- *Reward Early Action*
A policy of 100 percent auction will reward those who have taken early action to reduce their emissions. Businesses that create less global warming pollution per unit of production would have to purchase fewer allowances, placing them at a competitive advantage. By contrast, a system that allocates free allowances based on emissions could fail to reward these “good” actors.
- *Create a Level Playing Field*
Auctions allow new firms entering the market to compete on a fair and equivalent basis with existing firms, with the same access to allowances.
- *Foster Administrative Simplicity and Lower Transactions Costs*
Allocating allowances for free would set in motion a time-consuming and costly process of lobbying and negotiation over which businesses, institutions, and individuals would get how many allowances.
- *Support a Transparent, Well-functioning Market and Price Discovery*
The auction of allowances is an effective way to provide clear, timely information about the market value of these allowances, which helps firms make informed decisions about future production and investments. Moreover, auctioning should contribute to lower price volatility. Suppliers of allowances (those who may have received or purchased excess allowances) can be late in entering the market, or they may simply hold onto their excess allowances as a hedge against the possibility that allowance prices might rise in the future. On the other hand, those who need to buy allowances (the “demanders”) would tend to enter the market first and place an immediate value on allowances. This can quickly create a price spike due to a mismatch in market information. Once suppliers see the high price, they may enter the market in large numbers, causing a price crash. This kind of scenario and the resultant price volatility have been observed in the EU ETS context. Price stability and early price discovery will be important to developing a successful, smoothly operating market.

The design of a WCI's cap-and-trade program can benefit from lessons learned from the experiences of other similar programs. When the European Union launched its Emissions Trading System in 2005, virtually all the allowances were distributed for free. In the U.K., this led to electric power generators reaping windfall gains of about \$2.5 billion in 2005. A World Wildlife Fund report estimates that in Germany windfall profits in the electricity sector will range from \$46 billion to \$94 billion by 2012. In contrast, as ten states in the U.S. Northeast prepare to launch the Regional Greenhouse Gas Initiative (RGGI) in January 2009, almost every state that has decided how to distribute allowances under the program has wisely opted for 100 percent auctioning of emission allowances. The minimum amount of auctioning that will occur under RGGI is 90% in Maryland.

Free allocation does not dampen price effects; auctioning does not increase allowance prices. The European experience with emission trading has shown that regulated entities will pass along the value of an allowance, the opportunity cost of not selling it, when possible regardless of how it was acquired. Allowance prices will reflect the number of allowances and the underlying demand for allowances, which in turn will reflect the relative ease of making reductions. And it is this allowance price that is independent of the method of allocation that will determine the opportunity cost associated with using a permit. How to understand this intuitively? Consider the cost of a ticket to the World Series. Would you expect a scalper to sell a ticket to you for a lower price if s/he got it for free? Almost certainly not. Therefore, the public interest will be served by auctioning allowances and using this revenue for the benefit of consumers.

UCS supports 100% auction in the electricity sector, which is a patchwork of publicly or consumer-owned utilities and investor-owned utilities operating under cost-of-service regulation. Auction revenue can be substantially returned to consumers via the utility that serves them for investments in efficiency and other investments that reduce the pollution that causes global warming. NRDC/UCS have conceptualized a "use it or lose it" approach to revenue recycling that returns some auction revenue to the service area from which it originated, thereby avoiding geographic wealth transfers.

5) Offsets and Allowances from Other Systems (Section 9)

First, it is important to note that offsets are only one of many methods for achieving reductions in sectors not under the cap. Offsets are simply a funding mechanism, and do not create reduction that are impossible to achieve otherwise. WCI should compare and contrast offsets with the range of other possible mechanisms for achieving emission reductions in capped sectors.

9.1. Cost containment

Despite our prior requests for greater precision of the use of the term "cost" (UCS comments on offsets option paper, February 2008), the Partners continue to use the term "cost" in a vague, essentially undefined way: cost of what to whom? One might assume that the Draft Design refers to the cost of an allowance, which is one measure of how easy or difficult it is for capped entities to make the reductions required under cap-and-trade. However, unless there is 100% auction with no return of auction revenue to regulated entities, the allowance price doesn't even directly map to the cost to the capped entities.

The issue of direct cost to capped entities versus net social cost (considering the full range of socioeconomic and environmental impacts) is highly relevant in understanding the tradeoffs that offsets present. While increasing the universe of reduction options (i.e. getting at sectors not directly capped) through compliance offsets could possibly bring about downward pressure on allowances prices, the question of how offsets affect net social impacts and long-term reduction costs are more subtle and less readily addressed as a theoretical construct.

The broader perspective of social benefits and costs brings into focus the tradeoffs that compliance offsets raise. Ineffective limits on compliance offsets such as a limit of 10% of emissions could lead to large outflows of capital through the outsourcing of emission reduction projects and related losses in economic and environmental benefits. The potential affect of offsets on allowance price comes at the cost of:

- Improvement in air quality and related public health benefits by ensuring investment in global warming solutions in capped sectors within the WCI.
- The realization of benefits from clean-tech investments and innovation in key (capped) sectors.
- Meaningful reductions in high-emitting capped sectors and avoidance of costly lock-in of long-lived fossil-fuel technology.

The relevance of co-benefits due to investment in global warming solutions is recognized by many mainstream economists. For example, Brian Murray and Martin Ross (two economists who do modeling for the US EPA) write that the co-benefits of global warming solution investment are “important to consider along side the [direct cost of climate action]...”⁴ Murray and Ross also recognize that the effect that policy can have in promoting innovation is not well represented in current economic models of the cost of climate action: “The actual realized cost of the policy will depend significantly on the development and deployment of low carbon technologies that are not widely in use today... It is difficult to predict and model how these developments will occur... Capturing these factors in the long-term economic assessment of climate policy remains the focus of the economic modeling community’s continued efforts”⁵

The cost of truly real, permanent, and additional offsets has yet to be fully discovered. One important factor that has not been thoroughly examined is the cost of creating and maintaining institutions to verify and track compliance offsets. The Cal EPA Market Advisory Committee warns of the potentially significant transaction costs associated with offsets, observing that: “Depending on the size and scope of the [cap-and-trade] program and the scope of potential offsets, the number of staff needed to implement an effective offset monitoring program could conceivably be larger than the staff needed to run the cap-and-trade program itself.”⁶ Offset sellers and buyers should not be able to shift the cost of administration of such a system to the public. Some studies have quantified the transaction costs to project developers, but these have

⁴ Murray, Brian and Martin Ross, “The Lieberman-Warner America’s Climate Security Act: A Preliminary Assessment of Potential Economic Impacts,” NI PB 07-04.

⁵ Ibid, p. 7.

⁶ Cal EPA Market Advisory Committee. 2007. “Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California.” (June 30), p. 74.

not considered the full costs of verification and monitoring. Moreover, since no system has come close to ensuring environmental integrity (see comments below on the Clean Development Mechanism), it could be argued that we do not have the empirical basis for making a judgment about how large the transaction costs could be in a system with environmental integrity, how these might erode potential efficiency gains, and how offsets perform on a cost basis.

A question to consider is whether any of the states or provinces within the WCI can build the institutional capacity necessary to overcome inherent economic incentives for offset providers and third party verifiers to exaggerate claims and ensure the environmental integrity of compliance offsets, especially within the first several years of the program.

Further, the necessity of offsets as a cost containment mechanism remains open. The California Air Resource Board's draft Scoping Plan predicts that: "[T]he projected effect of the recommendation on the state economy...is likely to be overall positive" (p.49). Under these circumstances, compliance offsets – at least those from outside of California – would not be needed for cost-containment approach.

US EPA modeling of offsets is flawed

Many have cited the 2008 US Environmental Protection Agency (EPA) economic analysis of the Warner-Lieberman cap and trade legislation as evidence of the cost containment potential of offsets. The EPA analysis states:

“If the use of domestic offsets and international credits is unlimited, then allowance prices fall by 71% compared to the bill as written.”⁷

EPA estimates that a 2015 allowance price of \$29-\$40 would be reduced to \$11/ton because of the affect of unlimited cheap offsets.

There is reason to believe that the EPA's analysis of the impact that unlimited offsets would have on US climate action is not realistic, primarily because they assume unrealistically low prices for international offsets. The EPA's analysis assumes that that the price of an international offset will be \$9 per ton in 2015.⁸ This is difficult to accept as reasonable when the current price for international offsets is currently about \$27 per ton.⁹

Moreover, the EPA ignores additionality problems in the CDM, implicitly assuming that all offsets claimed will be real, despite the fact that serious problems have been found. Schneider looked at a random sample of 97 CDM projects, and he found 40% of the projects representing

⁷ EPA Analysis of the Lieberman-Warner Climate Security Act of 2008, p. 6. Online at: http://www.epa.gov/climatechange/downloads/s2191_EPA_Analysis.pdf

⁸ Page 88 of the EPA's analysis of S.2181 gives offset prices over time. Online at: http://www.epa.gov/climatechange/downloads/s2191_EPA_Analysis.pdf

⁹The price of Certified Emission Reductions generated under the Kyoto Protocol's Clean Development Mechanism as of August 1, 2008. Online at: <http://www.carbonpositive.net/viewarticle.aspx?articleID=137>

20% of the credits were of doubtful or questionable.¹⁰ Other analyses have also found widespread instances of bogus reductions claims, e.g. Victor and Wara (looking at the Chinese energy sector broadly)¹¹ and Haya (looking at hydro electric CDM projects).¹² When potentially invalid reduction claims on the order of 20% are factored in, the true price of a ton of carbon reduced through the CDM is about \$33.75 per ton.

We have not yet had a chance to scrutinize the assumptions vis-à-vis domestic offsets, but personal communication from Point Carbon's Robert Kaineg (rk@pointcarbon.com) suggests that these are also overly optimistic.

Why are prices so much higher in practice than predicted by the US EPA analysis? One reason is overly optimistic assumptions about supply given that offset projects are entirely voluntary. The analysis assumes that a payment of 1 cent more than the cost of a project is enough to induce the project to go forward. Another issue is the failure to consider transaction costs. In order to ensure that the environmental integrity of the cap is not undermined, offset projects will have to be verified through institutional mechanisms that combine third party verification and government oversight. The challenge is that all actors in an offset program have incentives to inflate claimed reductions. Sellers want more "product" to sell. Buyers benefit from the price being depressed by greater supply. And third party verifiers are interested in developing a reputation for giving favorable reviews, so that they will get more business. A robust verification system will need to be created to counteract these incentives. However, effective monitoring of an offsets system increases transaction costs, in turn driving up the price and lengthening development timelines for offsets.

9.2. Quantitative limit on offsets

The draft recommendations suggest that the Partners are contemplating a limit of up to 10% of emissions, an upper bound that is much too large. Compliance offsets should be limited to roughly 10 percent of the *reductions* expected from the cap and trade program, or roughly one percent of emissions. The frame of emission reductions is the proper way to approach establishment of a quantitative limit if the WCI Partners are serious about their stated desire of ensuring, "a meaningful fraction of emission reductions occur at WCI covered sources." Indeed, prior cap-and-trade programs for reducing global warming pollution have used precisely this approach – the frame of emission reductions.

According to a rough analysis by UCS,¹³ a limit of 10% of emissions would allow for unacceptable delays in emission reductions in capped sectors. The variation in our estimates of

¹⁰ Schneider, Lambert. 2007. Is the CDM fulfilling its environmental and sustainable development objectives? An evaluation of the CDM and options for improvement. Report prepared for the World Wildlife Fund. Online at: <http://www.oeko.de/oekodoc/622/2007-162-en.pdf>

¹¹ Wara, Michael and David G. Victor, 2008. A Realistic Policy on International Carbon Offsets. Online at: http://pesd.stanford.edu/publications/a_realistic_policy_on_international_carbon_offsets/ and Wara, Micheal, 2006. Measuring the Clean Development Mechanism's Performance and Potential. Online at: <http://pesd.stanford.edu/publications/cdm/>

¹² Haya, Barbara, 2007. Failed Mechanisms: How the CDM is subsidizing hydro developers and harming the Kyoto Protocol. Online at: http://www.internationalrivers.org/files/Failed_Mechanism_3.pdf

¹³ See Attachments 2 and 3 for details on the assumptions and calculations used.

the impact of offsets is due to different assumptions about the extent to which complementary policies play a role, as illustrated in the tables and accompanying graphs.

UCS finds that an offset limit of 10 percent of emissions implies:

- Between a quarter and two-thirds of the *total* expected reductions (not just reductions from cap and trade) could be met through offsets in the early years of the program (through the end of 2016) – see Table 1.
- Somewhere between a quarter and a third of the cumulative reductions through 2020 could be met through offsets– see Table 2.

The numbers are even more stark when the reductions caused only by cap-and-trade are considered. A 10% of emission limit implies that:

- In the 2012-2016 time period, between 80-100% of reductions could occur through offset projects instead of through direct reductions achieved in capped sectors.
- Over the 2012-2020 time period, from just under half to up to almost 95% of reductions could be due to offsets.

Offsets as a percentage of total reductions (not just cap-and-trade)

Table 1. Cumulative reductions through 2016

Scenario	Offset
25% complementary policies	64.3%
50% complementary policies	50.0%
75% complementary policies	25.0%

Cumulative reductions through 2016

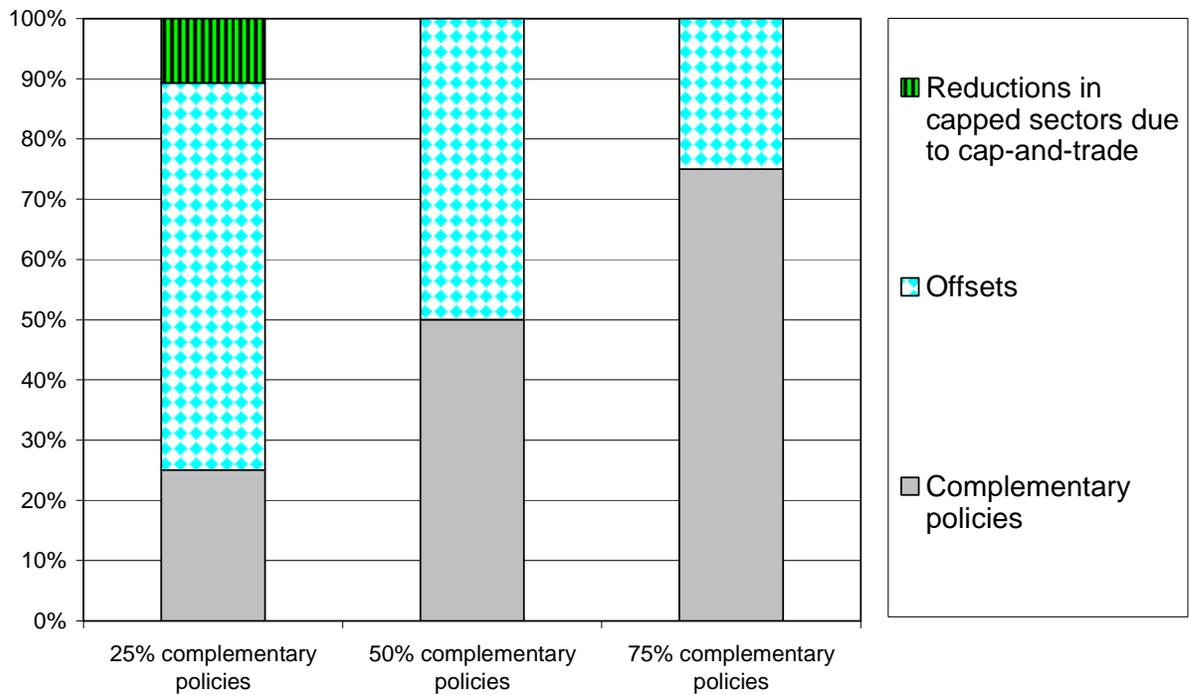
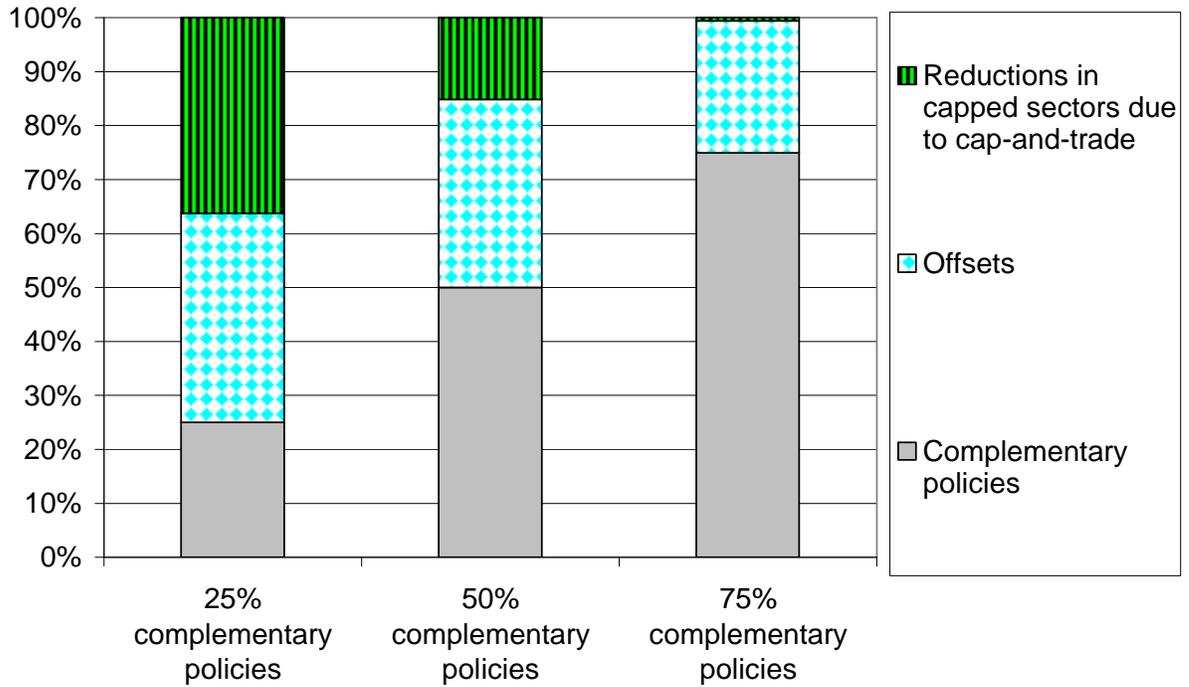


Table 2. Cumulative reductions: 2012-2020

Scenario	Offset
25% complementary policies	38.8%
50% complementary policies	34.8%
75% complementary policies	24.4%

Cumulative reductions (2012-2020)



Offsets as a percentage of reductions from cap-and-trade

Table 3. Cumulative reductions through 2016 (cap-and-trade only)

Scenario	Offset
25% complementary policies	80.2%
50% complementary policies	97.1%
75% complementary policies	100.0%

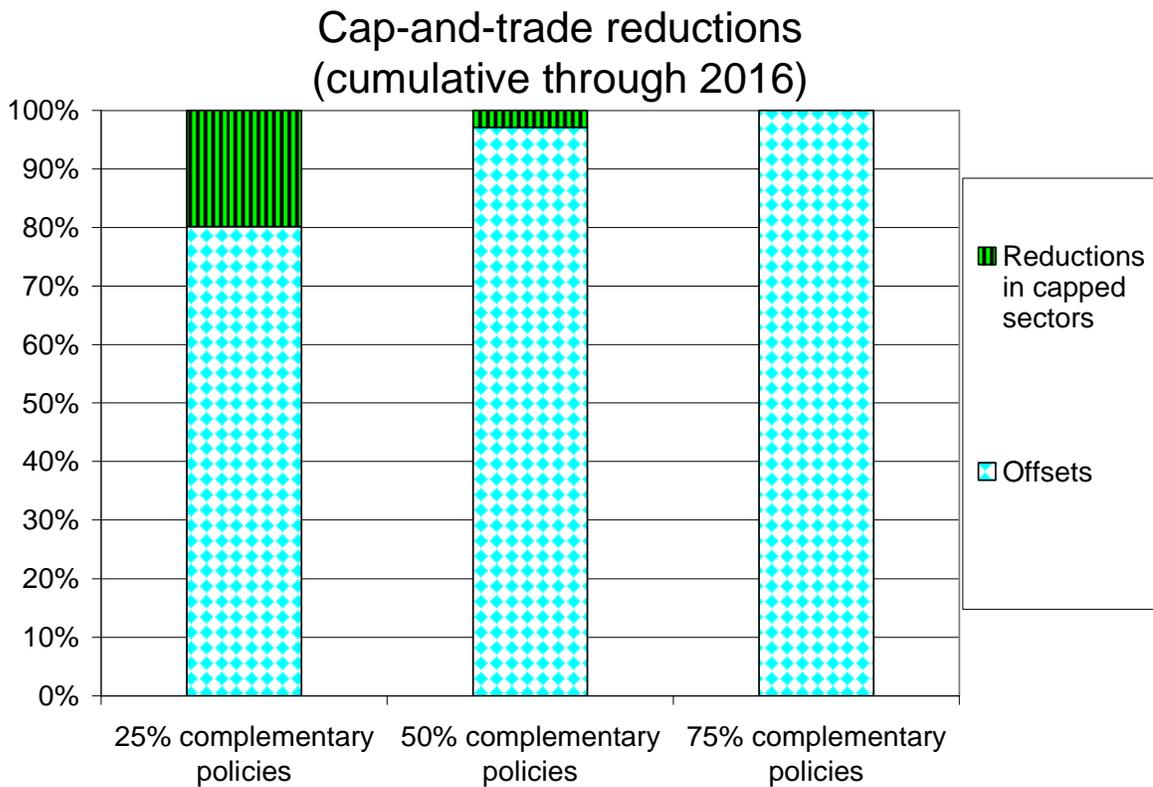
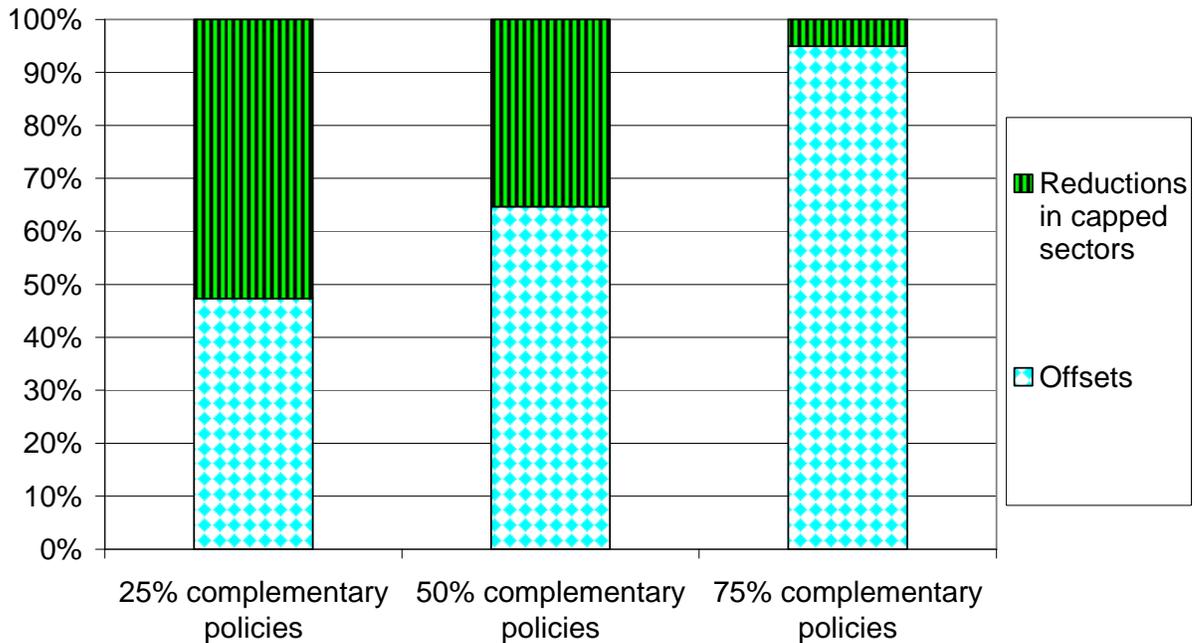


Table 4. Cumulative reductions: 2012-2020 (cap-and-trade only)

Scenario	Offset
25% complementary policies	47.3%
50% complementary policies	64.7%
75% complementary policies	94.9%

**Cap-and-trade reductions:
Cumulative (2012-2020)**



Emission reductions as the appropriate frame for quantitative limits

Both RGGI and the EU ETS have used the frame of emission reductions to set quantity limits on compliance offsets. The questions policymakers developing these programs have asked is: What amount of reductions are we sure we want to retain within the capped sector(s)?

RGGI

In RGGI, the approach they took was to forecast business as usual emissions in order to estimate total reductions sought over the 2009-2020 time period. To decide on an offsets limit, RGGI policymakers took the sum of emission reductions, reduced this number by half (the amount allowable as offsets), and levelized it over the 12 years through 2020. This is the basis for the limit of 3.3 % of emissions in RGGI. To quote the attached memo:

“Avoided emissions were defined as the difference between projected business-as-usual (BAU) emissions (a scenario absent the RGGI cap) and the RGGI cap schedule itself. Using this principle as a guide, the SWG estimated the avoided emissions that would need to be achieved to comply with the RGGI cap over time, and calculated an amount of offsets equivalent to 50% of this requirement.”

We do recognize that RGGI allows for more offsets if certain price thresholds are passed. However, it is also important to recognize that RGGI was formulated at a time when the threat of global warming was much less well appreciated. If you talk to those involved in the RGGI offset process, such as New Jersey’s Chris Sherry, they will tell you that the offset limits would be tighter if they were being defined today.

EU ETS

Limits in the EU ETS are designed to ensure that the majority of each country’s overall emission *reductions* occur domestically, which is known as the “supplementarity condition.” This reflects the thinking that international offsets should supplement, not outweigh, domestic action. The precise limit on offsets in each country is subject to approval by the European Commission as part of each member state’s National Action Plan that is analogous to California’s Scoping Plan. Thus, approved limits vary because the division of effort between cap-and-trade and other policies vary across member states. European Commission documentation provides a breakdown of offset limits, which are translated to the percentage of emissions that can be covered by offsets (arguably the most natural frame for the limit as at the end of a compliance period the regulated entity is faced with presenting allowances and offsets to cover their emissions in that time period). In Phase 2 of the EU ETS, the allowable percentage of emissions that can be covered by offsets range from zero to 20 percent, with 10 percent being the most common allowed percentage for 11 countries.

We hope that it is not lost on Californian and Western policymakers that the EU ETS has announced plans to substantially tighten offset limits in Phase 3 of the program, which is expected to run from 2013-2020. The future policy guidance implies that the lesson has been drawn that an overly permissive offset policy delays the necessary transition to a clean energy future. The European Commission’s proposed guidance for Phase 3 sharply cuts back on the amount of offsets that will be allowed.¹⁴ The proposed guidance for Phase 3 says that no further offsets generated under the Clean Development Mechanism beyond those allowed in during Phase 2 would be allowed in achieving Europe’s target 20% below 1990 levels.

If Europe makes a deeper emission reduction commitment in the context of an international agreement beyond Kyoto, as they have said that they are willing to do will, then offsets generated through the Clean Development Mechanism could play a limited role in going deeper than 20%. The proposed guidance suggests that up to 50% of the additional reductions needed for the EU to go from 20% to 30% below 1990 levels could be achieved through international offsets.

¹⁴ Commission of the European Communities, Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community, Brussels, 23 January 2008.

9.7. Clean Development Mechanism (CDM)

UCS does not support inclusion of CDM Certified Emissions Reductions (CERs) at this time. While we support the objective of the CDM to reduce emissions in less developed countries and to encourage sustainable development, the balance of evidence suggests that the CDM is failing to meet these objectives. We find particularly disturbing Schneider’s evaluation of a random sample of 97 CDM projects, the largest such independent analysis to date, which found that up to 40% of CDM projects have not been additional, and that market forces push the program to low cost reductions like chemical destruction, which does not contribute to sustainable development.¹⁵ We are hopeful that the CDM Executive Board will solve many of these problems but feel that the WCI should not accept CERs. On the question of how to best reform and improve the CDM, the WCI Partners do not have a seat at the table. The most direct way to send a signal that improvement is needed is to not accept CDM CERs. This decision could be revisited in the future, especially if more aggressive reduction targets are adopted.

9.9 Geographic limits

9.9.1 Preference for WCI projects

UCS supports a WCI-only geographic limit on offsets. This means that WCI-eligible offset projects, to the extent they are allowed as circumscribed by effective quantitative and qualitative limits, should only be located within jurisdictions under WCI control.

One reason to favor WCI-only offset projects is that allowing for offsets from outside the WCI creates a perverse incentive for those non-participating areas to resist mandatory economy-wide climate action. This is because if mandatory economy-wide climate action is undertaken, offset additionality is compromised and the revenue stream that goes to offset projects (which are voluntarily undertaken, even if they produce offsets for the compliance market as opposed to the voluntary market), is diminished.

The Draft Design lists some other reasons for limiting offsets to projects taking place within the WCI region: ensuring reductions within WCI territories as intended; recognizing that investments in global warming solutions will create valuable collateral benefits for WCI residents— improved environmental quality, improved public health, and other social benefits, such as greater energy security; and ensuring WCI jurisdictions are able to inspect offset projects to provide greater certainty vis-à-vis their claimed emission reductions. The fact that such problems have emerged in the Clean Development Mechanism – problems of both lack of environmental integrity (from the environmental perspective) and a slow, uncertain approval process (which restricts supply) lend weight to a recommendation that offset verification should happen at the state or regional level.

¹⁵ Schneider, Lambert. 2007. “Is the CDM fulfilling its environmental and sustainable development objectives? An evaluation of the CDM and options for improvement,” Report prepared for the World Wildlife Fund. (November 5)

6) Public Health and Equity

The WCI should ensure that, in the course of implementing strategies to reduce global warming pollution, air quality and public health are protected and that regional environmental and health co-benefits are maximized.

California has established safeguards for public health and air quality for its climate policies, including market mechanisms such as cap-and-trade. AB 32 requires that a cap-and-trade program that California participates in be designed in such a way that the potential for direct, indirect, and cumulative emission impacts, including localized impacts in communities that are already adversely impacted by air pollution is taken into consideration, and that increases in emissions of toxic contaminants or criteria pollutants is prevented to the extent feasible. The law also requires a cap and trade system to maximize additional environmental and economic benefits as appropriate.

The WCI design recommendations should include similar safeguards, and should also include provisions to ensure that the impacts of the reduction efforts are equitable and do not disproportionately impact low-income communities.

Conclusion

In closing, we thank the WCI Partners for considering comments from the public as you weigh these critical design decisions. UCS welcomes the opportunity to work together as this extremely important work on global warming proceeds. Please don't hesitate to contact us on any of the matters discussed in these comments.

Sincerely,

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Patricia Monahan, UCS Vehicles Program
Laura Wisland, UCS Energy Program